

# FingerPrint® Plus

*Parallel and Serial Screen Dump Graphic Printer Interface  
Card for the Apple IIe/II+.*

## Owners Manual

*Unleash the full power of your Apple computer and take full control of your printer and software. Become more productive and more creative by using FingerPrint® enhancement products from Thirdware Computer Products, the personal computer enhancers. Makers of high quality computer enhancement products since 1983.*

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**THIRDWARE COMPUTER PRODUCTS**  
A Division of Precision Software, Inc.

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# FingerPrint® Plus

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*Screen Dump Printer Interface Card for the Apple IIe*

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## **IMPORTANT INFORMATION REGARDING THIS PRODUCT'S WARRANTY**

THIRDWARE COMPUTER PRODUCTS (TCP) warrants this product free from defects for a period of FIVE years from the date of purchase. During this period, TCP will, at its own option, repair or replace at NO CHARGE any defective components provided that the defective product is returned with a valid Return Merchandise Authorization, prepaid to TCP. If warranty card has not been registered with TCP, dated proof of purchase must be included with the defective product. This warranty does not cover damage caused by accident, misuse, misapplication, unauthorized service or modification. In no event will TCP be held liable for incidental or consequential damages of any kind in connection with use or misuse of TCP's products.

To obtain a valid Return Merchandise Authorization number, please call TCP's technical support department between 2:00-5:00PM EST.

Any items returned without a valid Return Merchandise Authorization number will be returned to sender unopened.

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# 1. About this Manual

This manual is for FingerPrint® Plus owners. New owners should read chapters 2-4, after which you will be able to capture and dump screens , save images to disk and find your way around the FingerPrint® menu. A more in depth tour of the different options and uses of the FingerPrint® Plus are covered by topic in chapters 5-9. Chapter 10 shows you how to identify and resolve problems. The last chapter is designed to serve as a reference section where you can find DIP switch settings, suggestions for applications and technical information.

- Chapter 2, "The FingerPrint® Plus", gives a short description of the FingerPrint® Plus and some of its uses and applications.
- Chapter 3, "Set up and Installation", takes you through the steps of setting up your FingerPrint® Plus card, setting DIP switches, installing the card in your Apple IIe or II+ computer and testing the installation to make sure that everything is working correctly.
- Chapter 4, "Getting to Know the FingerPrint® Plus", gets you started by showing you how easy it is to make your first screen dump and takes you on a guided tour of the menus describing the different function and options.
- Chapter 5, "Printing & Manipulating Screen Images", shows you how to use the graphic printing and page formatting tools to enhance your screen dumps.
- Chapter 6, "The 'TYPE' Function", shows you how to use the "TYPE" function to print labels and send commands to your printer.
- Chapter 7, "Saving Images To Disk", shows you how to save images to disk where they can be used by other programs and by the FingerPrint® Slide-Show Program.
- Chapter 8, "The FingerPrint® Slide-Show Program", shows you how to create and run slide-shows consisting of images saved using FingerPrint®.

- Chapter 9, "Compatibility With Other Programs", shows you how to set up programs to print via FingerPrint® if the FingerPrint® card is not specifically listed by the program.
- Chapter 10, "Troubleshooting", shows you how to resolve unplanned problems as well as how to contact Thirdware Computer Products for technical support and the proper procedure to use when returning products for repair.
- Chapter 11, "Reference Section", contains technical information and suggestions for possible applications of the FingerPrint® Plus.

More detailed information regarding specific applications of the FingerPrint® Plus in education and at home can be found in Thirdware Computer Products "FingerPrint® User's News Letter", published six times annually. One years subscription costs \$3.00. To subscribe, send us the subscription application at the end of the manual, or send us a note requesting a subscription. Make sure to include a check for \$3.00 or your subscription will not be processed.

If you have a specific application of the FingerPrint® Plus card that you would like to share with other FingerPrint® users, we would be glad to include it in the "FingerPrint® User's News Letter". Just send us a note with your application and we will publish it on a first come first serve basis.

Address your correspondence to: Thirdware Computer Products, FingerPrint® User's News Letter, 4747 NW 72nd Avenue, Miami, Florida, 33166, telephone (305) 592-7522.

## 2. The FingerPrint® Plus

The FingerPrint® Plus is a parallel and serial interface card with screen dump graphic utilities for the Apple IIe and II+ computers which enable you to connect a parallel and a serial printer or modem to your computer, as well as capture any image from the screen of your computer and print it out on your printer at the touch of a button. This is called screen dumping. It's like having your computer connected to a photocopier, when ever there is something on the screen that you want to print, just press the FingerPrint® activator button followed by the return key, and the image will be printed by your printer.

The FingerPrint® Plus allows you to capture and print screens from any program at the touch of a button, with out having to interrupt or leave the program. After printing the screen, just press the "Escape" key and you are right back where you were when you pressed the FingerPrint® button.

The FingerPrint® Plus also provides you with the ability to enhance images before printing them. You can rotate, enlarge, crop or use any of the many other options to enhance your captured images and position them on the page.

Any image that you want to use in other programs programs can be captured by pressing the FingerPrint® button and saving the image to disk. In this way, you can create libraries of images to use in newsletters, diagrams, pictures and much more. You can also use the FingerPrint® Slide-Show program to create computer slide shows of your captured images. This is a great tool to create presentations for your use in class, home or office.

The FingerPrint® Plus is a fantastic tool to create and deliver customized instructional materials. Images generated by instructional software can be captured and printed to create work sheets, tests or homework assignments. Images can be saved to disk and , using the FingerPrint® Side-Show program, teachers can create presentations which can be displayed to a class by connecting a TV or video monitor to the computer.

The FingerPrint® Plus is also a great way to freeze a game program while you answer the phone, print result screens with high scores, show parents their children's results, motivate

students and provide accountability for work done. It's also a fast and simple way to print information from the screen of your computer without having to use cumbersome print commands provided by some programs which entail many keystrokes.

The FingerPrint® Plus provides an added bonus of a typewriter desktop accessory which can be accessed at a touch of the FingerPrint® button, in the middle of any program, at any moment. It can be used to type quick notes, add text to screen dumps and send special printer control commands to change fonts while inside a program.

The FingerPrint® Plus can be installed in any slot, but should be installed in slot 1, which is the normal slot to used by most programs for the printer interface in the Apple IIe and II+..

You can connect a parallel and a serial printer or modem to the FingerPrint® Plus card simultaneously and thereby save the money needed to buy an extra interface card and at the same time keep a slot free.

All in all, the FingerPrint® Plus card is very powerful and versatile card which should be part of every Apple IIe or II+ configuration.

All of the people at Thirdware Computer Products are very dedicated to providing our customers with high quality products and the best customer service possible. The FingerPrint® Plus is covered by a FIVE YEAR NO HASSLE warranty which covers your card against faults and errors arising from faulty parts or manufacturing and also entitles you to free technical support from 2:00PM-5:00PM EST. If your card does not function properly Thirdware will repair or exchange it at no cost provided that the warranty is not void. Remember to save your sales receipt to prove your purchase date should your FingerPrint® card need to be sent in for repair.

**DO NOT SEND A CARD TO THIRDWARE FOR  
REPAIR OR ANY OTHER REASON WITHOUT  
FIRST HAVING CONTACTED OUR TECHNICAL  
DEPARTMENT AND BEING ISSUED WITH A  
RETURN AUTHORIZATION NUMBER!**

The above rule is to protect you from having your case passed over or improperly expedited and guarantees you against the loss of your card by our service department. It also provides you with a reference number to use should you need to contact us in regards to your card.

**ANY CARD SENT IN WITHOUT A VALID  
AUTHORIZATION NUMBER WILL BE  
RETURNED UNOPENED!**

Now it's time to show you how to set up and install your FingerPrint® Plus in your Apple IIe or II+ computer.

### **3. Set Up and Installation**

This chapter will show you how to set up, install and test your FingerPrint® Plus card. If you have previous experience with the FingerPrint® Plus installation procedure and feel confident, skip to the "Quick installation summary" section of this chapter. If this is the first time you install your FingerPrint® Plus card, read through the whole chapter carefully.

There isn't any trick to setting up your FingerPrint® Plus, just follow these instructions and you'll be printing screen dumps before you know it.

The first thing you should do is check that you have every thing that should have come in the box with your FingerPrint® Plus.

### **What You Should Have**

The box that your FingerPrint® Plus came in should contain the following items:

- 1 FingerPrint® Plus card.
- 1 FingerPrint® printer cable (see below).
- 1 FingerPrint® activator button w. blue ribbon cable.
- 1 FingerPrint® Plus owners manual.
- 1 Diskette labeled "VDAP".

The FingerPrint® Plus comes with a choice of one of three cables; parallel, serial or ImageWriter II. Your box should contain one of these cables unless you ordered it with a special cable or without a cable.

Make sure that you have everything listed above. If you're missing anything, contact the dealer where you purchased your FingerPrint® Plus. Before going on, please fill out and return the warranty card found at the end of this manual.

Now you are ready to set the DIP switches and install your card.

### **Setting DIP Switches**

Once you've inventoried what came with your FingerPrint® Plus, the next step is to set the DIP switches. The DIP switches tell the FingerPrint® Plus what printer you normally will be using, what computer (Apple IIe or II+) it will be installed in and which port (serial or parallel) you wish to use as the default printer port. The printer and port settings can be changed at any time from the FingerPrint® menu without having to open your computer. You should only change the actual DIP switch settings when you wish to make a long term change.

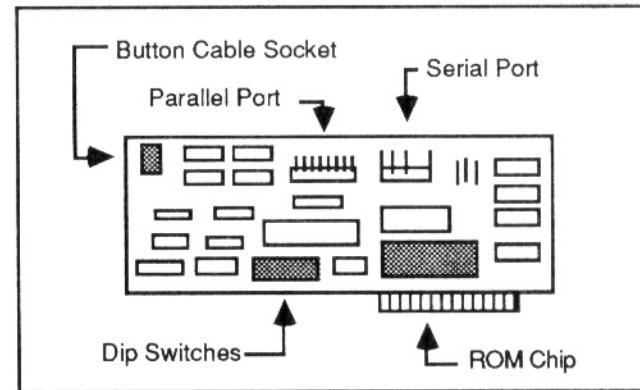


Figure 1.

Look at Figure 1 above. As you can see the DIP switches are located on the lower left part of the FingerPrint® Plus card just to the left of the "golden comb" or connector which fits into a slot in your computer. You can also see the button cable socket where the FingerPrint® activator button is connected, the ROM chip that contains the "firmware" or program that controls the card, and the serial and parallel printer ports located near the top edge of the card.

Later on, in the section entitled "Installing the FingerPrint® Plus", we will tell you how to connect the FingerPrint® activator button. Information regarding installation of new ROM chips or special program ROM chips can be found in the Reference Section at the end of this manual.

Now let's get back to setting the DIP switches. The DIP switch consists of eight small switches which can either be in the "ON" (up position), or in the "OFF" (down position). The DIP switches are located near the bottom edge of the FingerPrint® Plus card. Hold the card in your hand with the golden comb connector facing upwards so that the text on the DIP switch is right-side-up, like in the diagram in Figure 2 below.

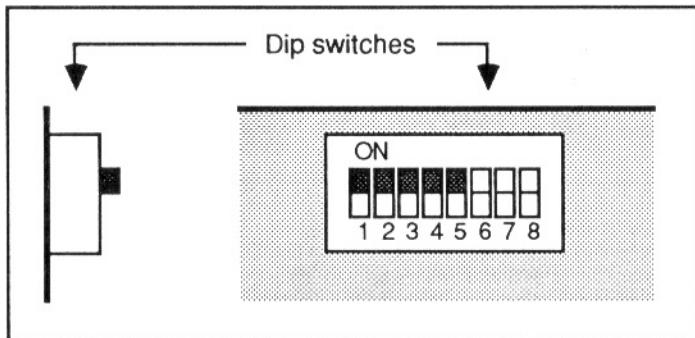


Figure 2.

Let's first see how to set the DIP switches for the computer you will be using. The DIP switch that determines what computer you are using is switch 1. If you are using an Apple IIe, switch 1 should be in the "ON" or up position (when the golden comb is facing upwards). If you are using an Apple II+, switch 1 should be in the "OFF" or down position.

Next, we need to set which printer port, serial or parallel, you will be using as your default printer port. This setting can be temporarily changed from the FingerPrint® Plus menu at any time but will revert to the default setting when you reset the computer.

Switch 2 determines the default printer port. If you are using a parallel printer as your default printer, switch 2 should be in the "ON" or up position. If you are using a serial printer, switch 2 should be in the "OFF" or down position.

Switch 3 determines if the FingerPrint® Plus card will emulate (act like) an Apple SuperSerial card (serial) or Orange Micro Grappler+ card (parallel). In this way you can set your software programs to use either an Apple SuperSerial or Orange Micro Grappler+ card if there is no selection called "FingerPrint" in the set-up procedure of your software. This means that your FingerPrint® Plus card will be compatible with almost every piece of software even if "FingerPrint" is not listed!

Switch 3 should always be in the opposite position of switch 2. In other words, if switch 2 is set to "ON", switch 3 should be set to "OFF" and visa versa.

If you are using an Apple IIe computer with a serial printer, your DIP switch settings should be set as: SW1=ON, SW2=OFF, SW3=ON. If you are using an Apple IIe computer with a parallel printer, your DIP switch settings should be set as: SW1=ON, SW2=ON, SW3=OFF. Please make sure that you have set switches 1-3 correctly for your computer configuration.

Now you must tell the FingerPrint® Plus card which printer you will be using as your default printer. This is important because different printers handle graphic printing differently and require different commands from the interface card. If the card is incorrectly set, than your printer will not print graphics correctly. This setting can be temporarily changed in the FingerPrint® Plus menu at any time, and will revert to the default settings when the computer is reset.

Switches 4-8 determine which printer is your default printer.

If you ordered your FingerPrint® Plus card with an Apple ImageWriter II cable, the FingerPrint® Plus should have come from the factory with switches 4-8 set for the Apple ImageWriter II printer. As you can see, the switch settings for the Apple ImageWriter II are:

SW4-OFF SW5-ON SW6-OFF SW7-ON SW8-ON

If you ordered your FingerPrint® Plus card with a serial cable, the FingerPrint® Plus should have come from the factory with switches 4-8 set for the Apple ImageWriter I printer. As you can see, the switch settings for the Apple ImageWriter I are:

SW4-OFF SW5-ON SW6-ON SW7-ON SW8-ON

If you ordered your FingerPrint® Plus card with a parallel cable, the FingerPrint® Plus should have come from the factory with switches 4-8 set for the Epson printer. As you can see, the switch settings for the Epson printer are:

SW4-ON SW5-ON SW6-ON SW7-OFF SW8-ON

If you are using one of the above mentioned printers as your default printer, check to make sure that the switches are set as described above. If for some reason the card came with the switches set differently, set them as they appear in corresponding selection above, using your finger or a pen to move the switch.

If you are in doubt as to which position is "ON" and which is "OFF", hold the card in your hand with the "golden comb" (the connector which fits into a slot on your computer) facing upwards. Now the DIP switches are at the "top" of the card. When the raised or toggle part of the switch is in the upper position, it is "ON". When it is in the lower position, it is "OFF".

If you are using a printer other than the Apple ImageWriter II, Apple ImageWriter I or Epson printers, you will have to change DIP switches 4-8. Follow the instructions in the next section entitled "Changing Printer DIP Switches".

## Changing the Printer DIP Switch Settings

You only have to read this section if you are using a printer other than the Apple ImageWriter II, Apple ImageWriter I or Epson printers.

Take a look at the table on the following page. There you will find all of the settings necessary to use most printers. If your printer is not listed, try the "Epson (Generic)" settings. If these do not work properly, contact Thirdware Computer Products customer service department and they will tell you how to set the switches for your printer.

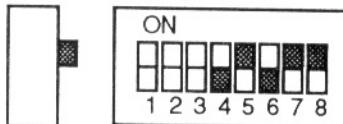
Be sure to write down the setting they give you and fill in one of the blank switch diagrams listed in the "Reference Section" at the end of the list of printer switch settings. In that way you will know where to find the setting should the need arise in the future.

When you know the DIP switch settings for the printer you are using, change the switch settings, using your finger or a pen to move the switch, so that switches 4-8 are correctly positioned.

In the DIP switch table diagrams, a little black square indicates the position of the switch. If it is in the up position then the switch is in the "ON" position. If it is in the down position then the switch is in the "OFF" position.

You will also notice that we have taken the liberty of indicating the position of switches 2-3 which determine the default printer port. In most cases the printers listed use the indicated default port setting.

Make sure that these switches are set correctly for your printer. If for some reason your printer uses a serial interface port and the diagram indicates a parallel port, make the corresponding adjustment to switches 2-3 by inverting the switches 2-3. Check the DIP switch setting with the setting in the table on the following page or the setting you received from Thirdware Computer Products customer service department. Are they set correctly? Now we can go on to the next step of the installation process.



## Printer Dip Switch Settings

Note: Switches 2-3 set the default port. Switch 1 determines the computer type (IIe=ON, II+=OFF).

|                 |         |
|-----------------|---------|
| 1 2 3 4 5 6 7 8 | PRINTER |
|-----------------|---------|

|  |                            |
|--|----------------------------|
|  | Apple ImageWriter II       |
|  | Apple ImageWriter I        |
|  | Apple DMP                  |
|  | Apple Scribe               |
|  | Apple Scribe (Color)       |
|  | Citoh/NEC                  |
|  | Citoh 1570 (Color)         |
|  | Citoh 8510 (Color)         |
|  | Epson (generic)            |
|  | Epson FX, Fastext-80       |
|  | Epson JX (Color)           |
|  | Epson LQ-1500              |
|  | Epson (enhanced mode)      |
|  | Panasonic, Legend, Brother |
|  | IBM (Epson compatible)     |
|  | Okidata 82,83,92,84        |
|  | Toshiba                    |
|  | Mannesmann Tally           |

(Dip Switch Settings cont'd.)

| 1 2 3 4 5 6 7 8 | PRINTER                       |
|-----------------|-------------------------------|
|                 | MT Spirit 80                  |
|                 | IDS Prisma (req. spec. cable) |
|                 | Gemini, Smith Corona          |
|                 | Gemini (old version)          |
|                 | Quadjet (color)               |
|                 | Cannon (color)                |
|                 | Radio Shack (color)           |
|                 | Radio Shack DMP               |
|                 | IDS (color)                   |
|                 | Okimate (color)               |
|                 | Diablo (color)                |
|                 | Anadex                        |
|                 | Other: _____                  |

# Installing the FingerPrint® Plus

Now you're ready for the next step, installing the FingerPrint® Plus. This procedure is divided into four easy steps; (1) opening your Apple II, (2) plugging in the FingerPrint® Plus, (3) attaching the activator button and finally (4) closing your Apple II.

## Opening your Apple II

Before you can get at the slots to plug in the FingerPrint® Plus, you need to remove the lid of your Apple II. If you feel unsure about opening your Apple II and installing the FingerPrint® card, ask a dealer or other experienced person for help.

### IMPORTANT!

Make sure the Apple II power switch is off, but leave the power cord plugged into a grounded outlet. This keeps your computer system grounded. If the power has been on, wait at least 30 seconds after turning off the power before connecting anything to or disconnecting anything from the Apple II.

To remove the Apple II lid, wrap your hands around the rear corners of the Apple II case, and gently lift the back lip of the lid until it comes free of the case. When you feel the lid release, lift it carefully all the way out of the case and put it to one side.

## Plugging in the FingerPrint® Plus

Before plugging in the FingerPrint® Plus make sure to touch the power supply case (see Figure 4 below) to discharge any static electricity that may be on your clothes or body.

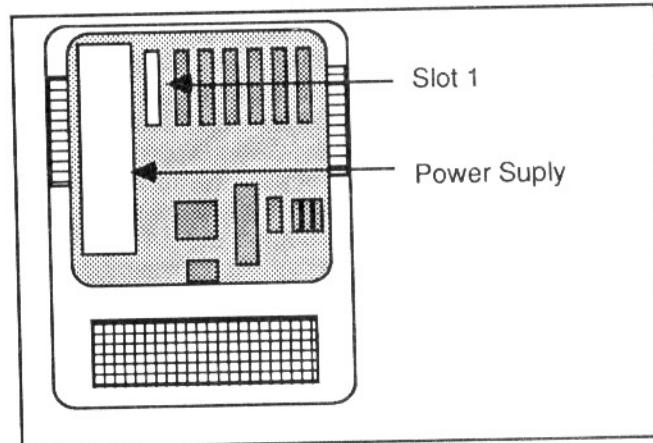


Figure 4.

Now that the computer is open and you have discharged any static electricity that may have been on your clothes or body, you can go ahead and plug the FingerPrint® Plus card into any free slot (we recommend slot 1, see below for details).

Again, if you feel unsure about plugging in the card, stop now and ask a dealer or person with experience for help.

We recommend that you use slot 1 (see Figure 4 above) because most programs expect the printer interface card to be installed in this slot. Other alternatives include slot 7 or slot 2.

When you handle the card, avoid touching the gold fingers along the bottom edge of the card. The moisture from your fingers could attract dust, which would weaken the card's connection to the computer. You'll have to exert some pressure to get the card into the slot. (if it were a loose fit, it would be a loose connection.) But don't wiggle the card from side to side in your efforts to insert it. Rock it forward and back until it's firmly seated in the slot.

Once the card is firmly in place we can go on to attaching the FingerPrint® Plus activator button.

## Attaching the activator button

The FingerPrint® Plus normally comes from the factory with the activator button and its blue ribbon cable already attached to the card. If the cable has become disconnected just plug the cable back into the cable socket in the upper left hand corner of the card. (See Figure 5 below).

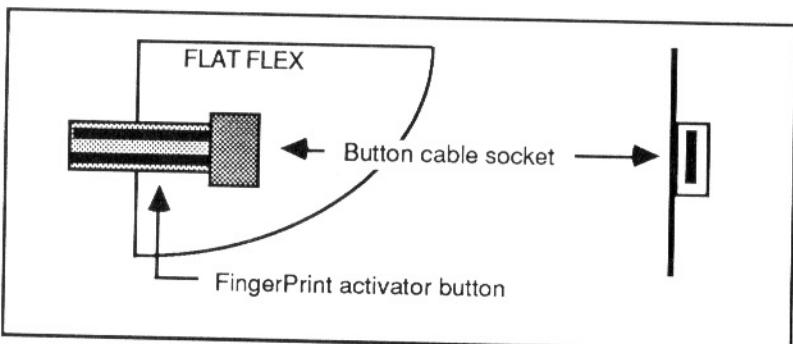


Figure 5.

With the blue ribbon cable firmly connected to the card, look at the front of your computer for a place to attach the self adhesive button end . We recommend that you attach the button on the smooth flat part of the top left-hand side, just above the keyboard between the lid and the edge of the computer. (See Figure 6. below)

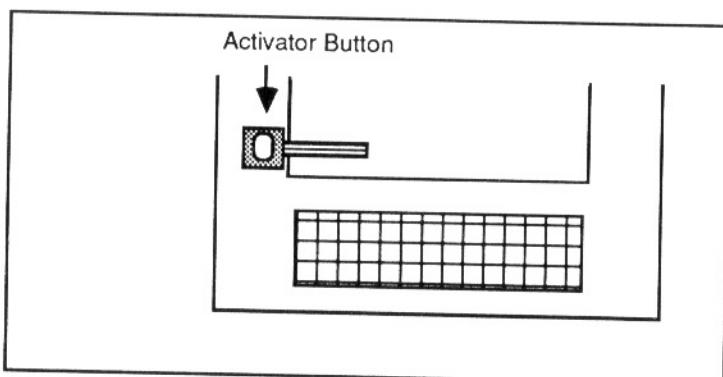


Figure 6.

If you don't want to use the self adhesive to attach the button, use double sided tape . To protect the button from extreme wear and tear or from being removed by small children with inquisitive fingers, cut a 1 1/2" square piece of clear self adhesive contact paper used to cover books and place it over the button so that it protects the button and an small area around the button.

Before going on to the next step, make sure that the card is firmly in place and that the button is connected to the card. Don't worry about the button coming loose, it's made that way so that it won't damage the card if someone pulls on it. Just plug it back in its socket.

## Attaching the printer cable

Now that the card is firmly in place, and the button correctly connected, we can attach the printer cable. Take the printer cable out of its box and look at the ends of the cable. On one end you will find the printer connector which you will later plug into the printer. On the other end you will find a small rectangular black plastic connector which you will connect to the card.

Now carefully remove one of the vertical plastic panels on the back side of your computer and pass the black plastic connector through the hole until it reaches the card.

Earlier we showed you a diagram of the card with the parallel and serial printer ports clearly labeled. Locate the ports on the card. They can be found along the top edge and consist of two rows of ten golden pins and one row of four golden pins respectively.

If you have a parallel cable, look at the black plastic connector. You will see two rows of ten small holes which correspond to the golden pins on the card's parallel port. Carefully connect the cable to the card by placing the black plastic connector on top of the pins and pressing slowly. It is very important that you connect the cable properly. Make sure that the cable running from the connector does not cross over the top of the card . The connector should fit snugly and easily. Check to make sure that all of the pins are covered by the connector.

If you have either a serial or ImageWriter II cable, look at the rectangular black plastic connector and you will notice that one of the holes has no cable connected to it. If you look at the serial port on the card you will see that it also is missing a golden pin. Carefully attach the cable to the connector on the card so that the hole that is missing a cable is lined up with the missing pin.

The last thing you should do is carefully connect the printer end of the cable to your printer. Make sure that you do not damage any of the pins in the connector by pressing to hard.

No you're all set to close up the computer and test your card!

## Closing your Apple II

Replace the lid of your Apple II by carefully inserting the front edge of the lid and carefully lowering the back edge of the lid into place. Press down on the back corners of the lid until you hear it click shut.

Congratulations! You've just installed your FingerPrint® Plus. Now let's quickly summarize the installation and then go ahead and test the FingerPrint® Plus card on your printer.

## Quick installation summary

This is a summary of the steps you should follow when installing the FingerPrint® GS1 in your Apple IIGS.

1. Check that you have received everything .
2. Set DIP switches.
3. Open Apple II.
4. Plug FingerPrint® Plus into a slot.
5. Attach activator button and blue ribbon cable.
6. Attach Printer cable.
7. Close Apple II.
8. Test installation.

If you feel unsure about any of these steps, please refer to the appropriate sections in this chapter.

## Testing the Installation

The diskette that came with your FingerPrint® card is labeled "VDAP". This diskette contains a testing program as well as the FingerPrint® Slide-Show program which is mentioned later in this manual. We will be using the testing program to verify that the installation is correct.

Power-on your computer, monitor and printer using the VDAP diskette as your boot diskette. A menu will appear and you should select the first option, "INSTALLATION VERIFY". The drive will load the program and a new screen should appear telling you in which slot you've installed your FingerPrint® card and the date of the firmware.

If this screen does not appear and a screen telling you that there is no FingerPrint® card installed appears, please check to make sure that the card is correctly inserted into a slot after first turning off your computer. Then repeat the above procedure.

Press any key and a new screen will appear with information regarding how you have set the DIP switches. Please verify these selections with your configuration. If they are incorrect, turn off your computer and check the DIP switches, then repeat this procedure.

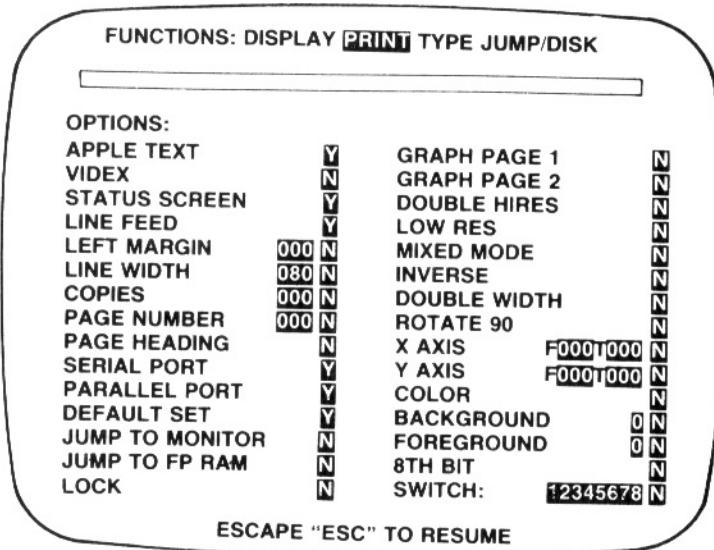
The next two screens will tell you if the test program has found any errors in the ROM or RAM memory chips on the card. After completing these tests the program will prompt you to turn on your printer. Make sure that your printer is turned on, that the cable is firmly connected, and that the printer is "on-line" or ready to print. Now press any key.

The printer should now print "THIS IS THE FINGERPRINT TEST" ten times followed by a full set of text characters. If this step was completed correctly you're all set to use your FingerPrint® card. If you encountered any problems or if the printer test did not print out correctly, please check your DIP switch settings or call Thirdware Computer Products technical support for more assistance.

## 4. Getting To Know The FingerPrint® Plus

Now that you've installed and tested your FingerPrint® Plus card, let us introduce you to some of the wonderful things that you can do using this product.

The first thing that you need to know is how to activate the menu. Turn on your computer and printer, then press the FingerPrint® activator button. A menu will appear similar to the menu below. This menu will appear anytime you press the activator button from inside of any application.



The menu is divided in to two parts. The top part of the menu is the function menu. Here you can find the four main functions of the FingerPrint® Plus card: (1) DISPLAY, (2) PRINT, (3) TYPE and (4) DISK/JUMP.

The bottom part of the menu is called the "OPTION" menu. Here you can mix and match different options to enlarge, crop and otherwise manipulate the image you intend to print.

To leave the menu and return to your program, just press the "Escape" key and you will return to the exact place in your program where you left off when you pressed the activator button.

When you press the activator button, FingerPrint® will automatically place the cursor on the "PRINT" function so that you can easily print the screen by only pressing the "Return" key.

To select another function, use the right/left arrow keys and the cursor will move in the respective direction. Then press the "Return" key to activate the function.

To move to the "OPTION" menu, simply press the space bar and the cursor will jump down to the first option. To move to another option just press the up/down arrow keys. To change an option just press the "Return" key or press the "Y" or "N" keys.

To return to the "FUNCTION" menu, simply press the space bar and the cursor will automatically place itself on the "PRINT" function.

Now you're ready to make your first screen dump!

### Your First Screen Dump

To make things easy, let's print the FingerPrint® menu on your printer. Make sure that your computer and printer are powered-on and press the activator button. The menu should appear. Now, press the space bar so that the cursor jumps down to the "OPTION" menu and press the down arrow key until the cursor is located on the "STATUS SCREEN" option. Now, press the "return" key or the "Y" key and the setting to the right of this option will change from "N" to "Y". Press the space bar to return to the "FUNCTION" menu and then press the "Return" key. Your printer should now print out the FingerPrint® menu screen.

**That was easy!**

Now let's try to print an image from a piece of software. Boot up your computer with the software you wish to screen dump. When the image you wish to print appears on the screen, simply press the activator button. Now, press the "Return" key and the image will be printed on your printer.

Press the "Escape" key, and you will be returned to your program - just where you left off when you pressed the activator button.

Continue with the software until you find another screen that you wish to print and repeat the procedure.

Now let's explore some of the other things you can do with your FingerPrint® Plus card.

## Exploring the FingerPrint® Menu

Now that you know how to make a simple screen dump and how to move around between the "OPTION" and "FUNCTION" menus, let's look a little more in depth at each menu and the respective menu's features.

### The Function Menu

The function menu contains the four basic functions of the FingerPrint® Plus card.

The "DISPLAY" function allows you to display what was on the screen at the moment when you pressed the activator button. This is the image that will be printed if you press return when the cursor is on the "PRINT" function. In this way you can check the image you're about to print or save to disk to make sure that it is the image you want.

To display a screen, select this function and press the "Return" key. The image that was on your screen when you pressed the activator button will appear on your screen. To return to the menu just press the space bar. If you press the "Return" key again, images stored in the computer's other memory locations will appear on the screen. In this way you can cycle through the different video memory pages and select to print or save other images than those that were displayed on the screen when you pressed the activator button. To return to the menu, just press the space bar and the last image that was displayed will be selected. To select another image, just repeat the procedure until the required image appears, then press the space bar.

The "PRINT" option will print the image that was on your screen when you pressed the activator button. Press the "Return" key on this function and the image will be printed.

The "TYPE" option allows you to type text from the keyboard and print it directly on your printer - just like an electric typewriter. This is very useful to type labels or add text to screen dumps. You can also use this function to send special commands to your printer. More detailed information regarding this function can be found in chapter 6.

The "DISK/JUMP" function allows you save images to disk. In this way you can capture images for use in other programs or to be used with the included FingerPrint® Slide-Show program. More information regarding this feature can be found in chapter 7.

### The Option Menu

The "OPTION" menu consists of a number of options which allow you to manipulate your images, format printing and control your printer. Options are like switches - either "Y" or "N". To switch from one to the other just press the "Return" key or press the "Y" or "N" keys. Some options have numeric values. To set these, just position the cursor on the option and enter a value. An option is disabled until the "N" is changed to a "Y". Turning off the or resetting the computer will return the option settings to their default values.

#### -APPLE TEXT Y/N

Indicates if the image to be printed is a text screen. This is automatically set by the card and you should never need to set this option.

#### -VIDEX Y/N

Indicates if you are using a VIDEX 80 column video card. This is a carry over from the Apple II+ and can be disregarded if you are not using a VIDEX card.

#### -STATUS SCREEN Y/N

Allows you to print the current settings of the FingerPrint® menu by setting this option to "Y" and then selecting the "PRINT" function.

**-LINE FEED Y/N**

Adds an extra line to your print out. Only useful with text when you wish to double space.

**-LEFT MARGIN 010 Y/N**

Allows you to set a left margin between 0-255 characters. Useful to place screen dumps or text in a particular position on the page. See "Page Formatting" in chapter 5 for more information.

**-LINE WIDTH 080 Y/N**

Allows you to set the line width of your print out from 0-255 characters across.. See "Page Formatting" in chapter 5 for more information.

**-COPIES 000 Y/N**

Allows you to select from 0-255 copies of the text or image that you wish to print.

**-PAGE NUMBER 000 Y/N**

Allows you to set the page number from which FingerPrint will start numbering if the option is enabled.

**-PAGE HEADING Y/N**

Indicates if the page heading option is activated. See "Printer Text Commands" in chapter 5 for more information.

**-SERIAL PORT Y/N**

Enables/disables the serial port.

**-PARALLEL PORT Y/N**

Enables/disables the parallel port.

**-DEFAULT SET Y/N**

Resets the FingerPrint options to their default settings when you press the "Return" key while the cursor is on this option.

**-JUMP TO MONITOR Y/N**

Makes FingerPrint jump to the Apple memory monitor location active when the activator button was pressed. Set this option to "Y" and then select the "DISK/JUMP" function.

**-LOCK Y/N**

Locks FingerPrint Plus so that any commands from your software will be ignored.

**-GRAPH PAGE 1, GRAPH PAGE 2, LOW RES, MIXED MODE Y/N.**

These options are automatically set by FingerPrint® Plus indicating which graphic memory page will be printed. These settings can be manually changed at any time. Setting GRAPH 1 and GRAPH 2 simultaneously to "Y" will result in a side by side dump of these two graphics pages.

**-DOUBLE HI-RES Y/N.**

If you have predetermined that the screen image that you wish to print or save is Double Hi-Res graphics, use this option while making sure that GRAPH PAGE 1 is also set to "Y".

**-INVERSE Y/N.**

Setting this option to "Y" will cause any portion of a graphic image which appears a black white on the screen, to be printed as black on paper. What appears as white on the screen, will appear as white on the paper. The default setting for this option is "N".

**-DOUBLE SIZE Y/N.**

Prints your image double the normal size when using the "Print" function with this option set to "Y". Bigger enlargements can be achieved by setting up your printer in "Headline" mode and then using this option.

**-ROTATE 90 Y/N.**

Prints your image rotated 90 degrees to the right. Great for making banners.

**-COLOR Y/N.**

Turns on or off the color screen dump setting. If you have a color printer this will result in B/W or color dumps. If you have a B/W printer, this will result in normal monochrome graphic or four shades of grey.

**-FOREGROUND/BACKGROUND 0 Y/N.**

Change the default foreground and/or background colors by setting this option to "Y" and then entering the number corresponding to the color you wish to select from the table below.

|          |           |         |          |
|----------|-----------|---------|----------|
| 0=Black  | 1=Orange  | 2=Green | 3=Yellow |
| 4=Purple | 5=Magenta | 6=Cyan  | 7=White  |

#### **-8TH BIT Y/N.**

Selecting this option causes the eighth bit not to be masked and sent as "0" to your printer.

#### **-X-AXIS and Y-AXIS      F000 T000 Y/N.**

Selecting this option allows you to crop an image using coordinates to indicate the from/to columns and from/to lines of the screen whose contents will be printed. Any part of the image that falls outside of the coordinates will not be printed. The coordinates range is the same as the Hi-Res screen, i.e. 280 by 192. Select the "X-AXIS" option and enter "F" (from coordinate) followed by a number from 0-280, and then "T" (to coordinate) followed by a number from 1-280 (and not lower than the value you entered in the from coordinate). This will set the FingerPrint to print only from column "F" to column "T". The same applies to the Y-axis which is set in the same way, with the difference that the range is 0-190. This will set the FingerPrint to print from line "F" to line "T". It takes a little practice, but a good idea is to take a clear piece of overhead graph film and create a guide to place over the screen of your computer to help you select appropriate coordinates. **NOTE: Caps Lock should be used or the "F" and "T" will be ignored.**

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## **5. Printing & Manipulating Screen Images**

One of the great advantages of the FingerPrint® Plus card is its abilities to print and manipulate any image that appears on the screen of your computer. Images can be enlarged, cropped, rotated or inverted.

In this chapter we will show you how to use these options to create a variety of effects.

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### **Graphic Printing Tools**

Graphic printing tools are those options that manipulate the image to be printed. We will cover the "Double Size", "Rotate", "Inverse", "Color" and "Foreground/Background" options here. The "X-AXIS/Y-AXIS" options are covered in the next section.

Use "Double Size" when you need to enlarge an image. Normally this results in the image occupying the complete width of the page. A normal image occupies half a page width. This is also useful for making flash cards from screen images which would normally be too small if printed in normal size.

Use the "Rotate" option when you wish to create a long banner of different images to paste up on the wall. You can use this together with the "Double Size" option to enlarge images on your long banners.

Use the "Inverse" option to print graphic images so that they correspond exactly to the screen image in regards to color. If a graphics screen has a white background and black images in the foreground, a normal print out would result in black background and white images. Setting the "Inverse" option eliminates this reversal.

Set the "Color" option to "N" when you want to turn off color printing when you're using a color printer. Set this option to "Y" when you want to print in four shades of grey when you only have a B/W printer. Four shades of grey is much better to use if you intend to make photocopies of the resulting images as this gives more contrast to the images.

Use the "Foreground/Background" options to change/add colors to the background and foreground of your screen dumps. If the image normally has a white background, add the color yellow to bring out better contrast and make the other colors come to life.

Mixing and matching these different options can result in many creative and interesting effects.

## Cropping Images

Cropping images is useful if you only wish to print a portion of an image and omit the rest. The cropping function of the FingerPrint® Plus card allows you to crop images by defining from what column to what column , and from what line to what line you wish to print. This feature provides teachers with a quick and easy method to crop out answers from images of math problems.

To crop an image, you must first know the coordinates which you need to specify so that the image will be correctly cropped. The screen of the Apple IIE is 280 positions wide by 190 positions high. With computer graphics, you always start counting from the upper left-hand corner of the screen. In other words, the coordinate 0,0 is the upper left-hand corner and the coordinate 280,190 is the lower right-hand corner of the screen.

If you only wish eliminate the top and/or bottom of the screen you would use the "Y-AXIS" option. If you wish to eliminate a portion of either side of an image you would use the "X-AXIS" option. By using both you can eliminate portions of all sides of an image.

To enter values in these options, it is a good idea to have the "Caps Lock" key pressed down so that any key you press will be uppercase. Move the cursor to the option you wish to set, press return or the "Y" key to activate the option, then enter the letter "F" directly followed by the value of the from coordinate. Then enter the letter "T" followed by the to coordinate. The to coordinate should never be lower than the from coordinate. Also you will notice that the FingerPrint® Plus card does not erase the values you have entered even if you set the option to "N". In this way you can set option values and activate the mas you need them when dumping images from a particular program. resetting the computer, resets the options to their default values.

## Page Formatting

Page formatting allows you to change the position of text or graphics on the page. By using the "Left Margin", "Line Width", "Copies" and "Page Heading" options you can have full control of the format of your output.

The "Left Margin" option allows you to set from which column on the page the printer will start printing. In this way you can create pages with two columns of text and graphics by simply setting the "Left Margin" value at "0" for the left column and "45" for the right column. Or you could print text on the left side of the page and graphics on the right.

The "Line Width" option allows you to vary the width of the page. By using this option you can list programs in 80 columns or even 132 columns if you have a wide carriage printer.

The "Copies" option allows you to print multiple copies of your screen images without having to repeatedly print the image manually. Just set this option to the number of copies required and make sure that there is enough paper in the printer.

The "Page Heading" command allows you to have the printer automatically print a heading of 40 characters at the top of the page in the left-hand corner. For added effect, you can even include printer control characters in the text so that the printer will automatically go to the top of the next page before starting to print. To enter the text heading, we must go to the "TYPE" function at the top of the menu. With the cursor over the word "TYPE" press the "Return" key once. Now enter the following characters : "^M" , which tell the FingerPrint® Plus card that the text that follows will be a page heading. The "^" symbol can be found on most keyboards by pressing the "shift" key and the "6" key at the same time. After the "^M" enter your heading text up to a total of 40 characters. End the text by pressing the "Return" key once and then press the "Control", "Shift" and "2" key at the same time to exit the "TYPE" function. The page heading text that you entered will now appear at the top of your screen just below the inverse type bar below the function menu. The "Page Heading" option will have automatically changed to "Y". To turn it off, simply set it to "N".

---

## Printer Text Commands

Printer text commands vary from printer to printer. You can use the "TYPE" function of the FingerPrint® Plus card to send special printer text commands to your printer. Normally these commands consist of either control or escape codes. To enter a control code just press the "Control" key while pressing the key for the command. For example, "Control-L" is entered by pressing the "Control" and the "L" keys simultaneously. Control codes appear in the TYPE bar as inverse characters. An escape code is entered by pressing the "Escape" key followed by the letter or number corresponding to the command. An escape code appears as a left bracket followed by the letter or number.

Useful printer commands are those that effect font, and type size selection. By setting your printer to use a headline text and then using the "Double Size" option, your image will be printed four times larger than normal. Other good uses include selecting condensed text sizes to make images smaller, or selecting good looking fonts for letters or text dumps.

Refer to your printer manual for the commands that correspond to your printer.

---

## 6. The "TYPE" Function

The "TYPE" function allows you to use your printer as an electric typewriter (without a correcting ribbon) and also allows you to send special printer control commands from the keyboard.

To enter the "TYPE" function, just position the cursor over the "TYPE" function and press the "Return" key once. The white inverse bar just below the function menu is called the "type bar". This is where you enter text or printer commands. Once you have activated the "TYPE" function the cursor is placed in the type bar. Now just enter the text you wish to print and press the "Return" key when you wish to change lines. The printer will print your text after you've pressed the "Return" key or entered about 80 characters. To the right you will notice a counter which tells you how many characters you have entered and which column of the page you are currently in. When you have finished entering the text, press the "Return" key once and then press the "Shift", "Control" and "2" keys simultaneously to leave the "TYPE" function.

## **7. Saving Images To Disk**

To save an image to disk using FingerPrint® Plus, just select the "DISK/JUMP" function. FingerPrint will prompt you for the name that you wish to give the screen image. Enter the name and optionally the slot and drive. An example would be as follows:

NAME: TEST,S6,D2

FingerPrint will automatically place a suffix after the file name to be able to recognize the graphic screen type and also a "@" in front of the name so that the FingerPrint® Slide-Show program will recognize the file as a FingerPrint saved image.

Images are saved in DOS 3.3 format and can be easily converted to ProDOS by first renaming the file to eliminate the "@" character. Then use the file conversion program from your ProDOS system diskette to convert the file. Now you can use the file in Dazzle-Draw, PrintShop and many other programs including Fantavision.

## **8. The FingerPrint® Slide-Show Program**

The FingerPrint® Slide-Show is a very powerful program that allows you to use screen images that you have saved to disk to create presentations, instructional electronic flash cards or an electronic bulletin board.

The program has three basic functions: (1) Create slide shows, (2) Run slide shows, and (3) Display a picture.

The first function, "Create a show", allows you to create a show by selecting screens that you have saved to a disk.

The second function, "Run a show", allows you to run a previously created show.

The third function, "Display a picture", allows you to view a particular screen previously saved on the disk.

The program is located on the "VDAP" diskette and can be started by booting your computer with the "VDAP" diskette. Select "3. Slide Show" and the slide show program's main menu will appear.

The program is not copy protected, so please feel free to make as many copies of the disk as you require. Please note that, even though the program can be copied as required, you may not include the program or any portions of the program in any product that you will be selling or distributing to the general public without prior written consent of Thirdware Computer Products. Also, a copyright notice must be included in the products documentation stating that the slide show program is the property of Thirdware Computer Products.

## Creating A Slide-Show

The first step in creating a show is to save the screens that you wish to use on a DOS 3.3 formatted diskette. The program can only use screens stored on one diskette. Many users like to save screens to various diskettes to create a library. When they wish to create a show, they copy the screens they wish to use to a new diskette, and create the show using that diskette.

If your show will only contain a few screens, you can save them to a copy of the "VDAP" diskette.

We will assume that you have saved some screens to a diskette and that you have made a working copy of the "VDAP" diskette before creating your first show. If you have not already done this, please do so now.

Go ahead and boot up the working copy of the "VDAP" diskette and select the slide show option from the main menu.

Select the first option, "Create a show".

A message stating "LOADING YOUR PROGRAM" will appear on your screen. After a moment a new message will appear on your screen.

### INSERT DISKETTE WITH FP FILES DRIVE 1/2

This message tells you to insert the disk containing your screens in drive 1 or drive 2, and press the "1" or "2" key to tell the program in which drive the data diskette can be found.

If you have only one drive, remove the "VDAP" diskette and insert the data disk, then press the "1" key. If your files are saved on the "VDAP" diskette, just press the "1" key. This allows you to create and run shows even though you may only have one drive.

If you have two drives, insert the data disk in drive 2 and press the "2" key.

At this time, you may return to the main menu by pressing the "Esc" key.

The program will now prompt you for the name of the slide show. Write the name and press the "Return" key. A message stating "One moment please.." will appear on the screen. After a moment, the slide selection screen should appear.

### SHOW DESIGN

| FILE NAME  | ORDER TIME |
|--|------------|
| >@( <b>name of saved screen</b> )<br>@( <b>name of second screen</b> ) |            |

### ESC TO EXIT/->- TO MOVE/RTN TO ENTER

A list of saved screens should appear on the screen. You will notice that the name has a "@" symbol as a prefix and a ".T", ".H" or other extension as a suffix. Your FingerPrint® card added these characters to the name of the screen when it saved them to disk. The "@" symbol is added to the name so that the slide show program can distinguish the file from other files on the disk. The ".T" or other suffix is added so that the program will know what type of screen was saved; ".T" = text screen, ".H" = Hi-Res screen, and so on.

The next step in creating a show is to select the screens in the order that you wish them to appear in the finished show, and as you select them, indicate to the program the length of time that you wish the screen to appear in the show before the show changes to the next slide. When you run the show, the program will ask you if you wish to use the time delay to automatically advance a slide or if you wish to manually advance through the show. We will discuss this in more detail in the next section of this chapter.

To select a screen, use the up/down or left/right arrow keys to move the ">" symbol until it is aligned with the screen you wish to select. Press the "Return" key to select the screen.

The program will now prompt you for the time delay that you wish to use for this slide. Enter a value from 10-9999 seconds. The actual time may vary from computer to computer depending on whether or not you are using an accelerator card. Try out some different values on your computer to find the times that suit your needs.

Once you have entered the time value, the right side of the screen will be updated with the time value and the respective slide's position in the show.

Select the rest of the slides for your show and press the "Esc" key when finished.

The program will now prompt you with the message "SAVE SHOW OR RESTART (S/R)". Press the "S" key to save the show, or press the "R" key to start over again.

Once the show has been saved, the program will prompt you to insert the "VDAP" diskette in drive 1. Make sure that the "VDAP" diskette is in drive 1 and press any key. The main menu will now appear on the screen.

Congratulations! You just created your first slide show.

---

## Running A Slide-Show

To run a previously created slide show, boot up your computer with a working copy of the "VDAP" diskette. If you have saved screens and created a show on a "VDAP" diskette, use the diskette containing the show you wish to run.

Select the "Slide Show" option from the main menu, then select "Run a show" from the slide show program menu.

A message stating "LOADING YOUR PROGRAM" will appear on your screen. After a moment a new message will appear on your screen.

**INSERT DISKETTE WITH FP FILES  
DRIVE 1/2**

If your show is not on a "VDAP" diskette, insert the disk containing your show in drive 1 or drive 2, and press the "1" or "2" key to tell the program in which drive the data diskette can be found. If you have only one drive, remove the "VDAP" diskette and insert the data disk, then press the "1" key.

If your files are saved on the "VDAP" diskette, just press the "1" key.

The show selection screen should appear on your screen after a moment.

### RUN A SHOW

#### FILE NAME

---

>@(**name of your show**).SH

#### ESC TO EXIT/->- TO MOVE/RTN TO ENTER

Use the up/down or left/right arrow keys to select the show you wish to run, then press the "Return" key. You may press the "Esc" key to exit if you wish to return to the main menu.

The program will now prompt you with the message:

#### RUN AUTO OR MANUAL (A/M)

If you wish to run the show using the time values you entered to automatically advance slides, press the "A" key.

If you wish to advance slides manually, press the "M" key.

In either case, you can manually advance a slide by pressing the space bar. Pressing the "Esc" key at any time during a show will exit the show.

A message stating "LOADING INITIAL PICTURE" will appear on your screen, and after a moment, the first slide will appear.

The show will continue endlessly until you press the "Esc" key.

## Displaying A Picture

This function allows you to display a screen previously saved to a disk. It functions just like the "Run a show" function with the difference that instead of selecting a show, you will select a screen.

This is a good way of previewing a slide before creating a show. It is also a perfect method to print screens that you have saved to disk. Display the screen using this option and then press the FingerPrint® button and print the screen. Many users create clip-art libraries of images and then use this method when they need to print the images.

## Applications

The FingerPrint® Slide-Show program provides you with a great tool for the classroom, library or home. By creating slide shows of screens previously saved to disk, you can create electronic flash cards, an electronic "bulletin board" that presents screens with information to viewers, electronic quizzes and much more.

Electronic flash cards are useful to provide students with reinforcement in special areas. Just save screens of the materials you wish the students to study and create a show. You can also create a worksheet to go along with the show by printing the images and you have an electronic quiz.

Many libraries use the slide show program to present screens with information regarding activities, new books, and other topics by letting a slide show run on a computer in the library. In this way, any passerby can read the information as the slide show presents it.

Some schools use the slide show program to create presentations of student class work for parents and school fairs.

The only limit to the many potential uses is your imagination.

## 9. Compatibility With Programs

The FingerPrint® Plus card is fully compatible with virtually all software thanks to the fact that the serial port is fully Apple SuperSerial card compatible and the fact that the parallel port is fully Grappler compatible.

When setting up software that does not specifically name the FingerPrint® Plus card, select the Apple SuperSerial selection if you're using a serial printer, or select the Grappler selection if you're using a parallel printer, from the program's set u menu.

If neither of these works for some reason, try using the Practical Peripherals selection in either parallel or serial.

In Apple Works, make sure that the printer set-up string is set to "CONTROL-I 80N".

## **10. Troubleshooting**

If your FingerPrint® Plus card does not function properly, check through the following steps and if the problem remains, contact Thirdware Computer Products Technical Support Line at (305) 592-7522 between the hours of 2:00-5:00 PM EST/EDST and a technical support representative will help you solve the problem. If the problem can not be solved by phone you will be provided with a return merchandise authorization number (RMA#).

**Do not ever return any product or part of a product to Thirdware Computer Products without a valid RMA # or your package may be misplaced or even lost.**

Thirdware promises to send either your repaired product or a new product within 48 hours of having received your package unless certain circumstances beyond our control prevent us from completing the repair or testing procedure.

### **FingerPrint® Doesn't Print**

If your FingerPrint® Plus card does not print properly, check to make sure that the DIP switches are correctly set for the printer and computer that you are using. Make sure that the printer cable is correctly connected and firmly in place. From the basic prompt "l" type "PR#1" and then press the "Return" key. Your printer should move the paper one line. Try typing any text followed by the "Return" key. If your printer does not print properly after these tests, contact Thirdware Computer Products Technical Support Department.

### **Menu Doesn't Appear**

If the FingerPrint® menu does not appear after pressing the activator button, check to make sure that the activator button cable is correctly connected to the card. If the menu still does not appear, contact Thirdware Computer Products Technical Support Department.

# 11. Reference Section

This section contains reference information referring to technical aspects of the product as well as ideas for applications.

A complete set of technical notes covering more in depth technical details of the card is available for \$2.00 from Thirdware Computer Products.

## FingerPrint® Keyboard Commands

Most of the options in the FingerPrint® options menu can also be accessed from the keyboard, by using the FingerPrint® TYPE function, or from BASIC by entering CONTROL-I or printing a "CHR\$(9)", followed by the command. The "n" character represents a number of your choice within the valid range for the respective command

Because the FingerPrint® Plus is fully Apple SuperSerial compatible certain keyboard commands, when sent from BASIC or from a program, have a different value. This is indicated in each respective command which is affected.

Grappler+ commands commands are also fully supported in their original format (Example: CONTROL-!GDI2 will print an inverted double size dump[ of graphic page 2.).

**A** Send a line feed after each carriage return. Default set to on.  
For more information see "LINE FEED" option.

**nB** Select color for background.  
For more information see "BACKGROUND" option.  
To activate this function in Apple SuperSerial emulation use "nY" instead of "nB".

(*In Apple SuperSerial emulation*)

Set baud rate for serial port. See "nY" command for correct values for "n".

**C** Activate "INVERSE" option.  
For more information see "INVERSE" option.

**D** Activate "DOUBLE SIZE" option.  
For more information see "DOUBLE SIZE" option.  
To activate this function when using Apple SuperSerial emulation use "1X" instead of "D".

(*In Apple SuperSerial emulation*)

This command sets the data format (data and stop bits). Use the nD format for the command with the following values:

| <u>n</u> | <u>Data bits</u> | <u>Stop bits</u> |
|----------|------------------|------------------|
| 0        | 8                | 1                |
| 1        | 7                | 1                |
| 2        | 6                | 1                |
| 3        | 5                | 1                |
| 4        | 8                | 2                |
| 5        | 7                | 2                |
| 6        | 6                | 2                |
| 7        | 5                | 2                |

**2D** Activate "DOUBLE HI-RES" option.  
For more information see "DOUBLE HI-RES" option.  
To activate this function when using Apple SuperSerial emulation, substitute "2X" for "2D".

**E** Reset FingerPrint® to default settings.  
For more information see "DEFAULT SET" option.

**nF** Select color for foreground.  
For more information see "FOREGROUND" option.

**10F** Activate "COLOR" option.  
For more information see "COLOR" option.

**G** Print the currently selected graphics page.

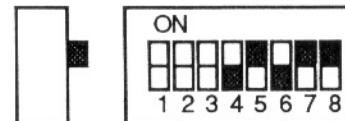
- 1G** Print the Hi-Res or Low-Res contents of graphics page 1.
- 2G** Print the Hi-Res or Low-Res contents of graphics page 2.
- 12G** Print the Hi-Res or Low-Res contents of graphics page 1 and graphics page 2 side-by-side.
- H** Send eighth bit to printer.  
For more information see "8TH BIT" option.
- I** Enable screen echo of anything sent to the printer. To disable this option, set LINE WIDTH option higher than 40 or send command "nN" where "n" is greater than 40.
- J** Activate LOW-RES option for graphic screen dump "G" command.
- K** Disable line feed after carriage return. Allows you to print over the same line many times or avoid double spacing if your printer automatically adds its own line feed after carriage return.
- nL** Set LEFT MARGIN option.  
For more information see "LEFT MARGIN" option.
- M** Activate PAGE HEADING option.  
For more information see "PAGE HEADING" option.
- 1M** Activate mixed mode graphics and text..  
For more information see "MIXED MODE" option.
- nN** Set LINE WIDTH option.  
For more information see "LINE WIDTH" option.
- nP** Set PAGE LENGTH to "n" lines and enable line count. Be sure that the printer is at the top of the page before executing this command. When the line count reaches "n", a CONTROL-L (skip to top of form) command will be sent to printer. To disable this command and line counting, set "n" to "0" by entering "OP".

- nQ** Translate "n" to a HEX number and send it to the printer. Useful when special printer commands require HEX values.
- R** Activate ROTATE 90 option.  
For more information see "ROTATE 90" option.
- S** Prints contents of text memory page 1.
- 2S** Prints contents of text memory page 2.
- 8S** Prints contents of VIDEX card text memory.
- nU** Set starting number for automatic page numbering option. Disable by setting "n" = to 0. See "PAGE NUMBERING" option for more information.
- V** Activate alternate printing routine located in FingerPrint® user RAM. Assumes that the routine has already been loaded in to the user RAM. This routine will be activated every time a character is sent to the printer.
- W** Disable user RAM routine.
- X** Set eighth bit to "0". See "EIGHT BIT" option for more information.
- nY** Select serial port and set baud rate using the following values for "n":      0=parallel port      8=1200 baud  
                   1=50 baud                9=1800 baud  
                   2=75 baud                10=2400 baud  
                   3=110 baud               11=3600 baud  
                   4=135 baud               12=4800 baud  
                   5=150 baud               13=7200 baud  
                   6=300 baud               14=9600 baud  
                   7=600 baud               15=19200 baud
- (In Apple SuperSerial emulation)*  
Use the "nB" command with the above values.
- 0Y** Select parallel port and deselect serial port.

- Z Set FingerPrint® card to transparent mode allowing complete software control of printer. This is required by some programs.

## DIP Switches

On the next two pages you will find the different DIP switch settings for most printers. The dark square indicates the position of the switch. The up position is "ON" and the down position is "OFF". Please remember that switch 1 should be set to "ON" if you are using an Apple IIe and set to "OFF" if you are using an Apple II+. Switches 2-3 determine the default printer port and Apple SuperSerial or Grappler+ compatibility. Remember that switch 3 is always the opposite of switch 2. Switch 2 in the "ON" position indicates that you will be using the parallel port as your printer port. Switch 2 in the "OFF" position indicates that you will be using the serial port as your default printer port.



### Printer Dip Switch Settings

Note: Switches 2-3 set the default port. Switch 1 determines the computer type (IIe=ON, II+=OFF).

| 1 2 3 4 5 6 7 8 | PRINTER                    |
|-----------------|----------------------------|
|                 | Apple ImageWriter II       |
|                 | Apple ImageWriter I        |
|                 | Apple DMP                  |
|                 | Apple Scribe               |
|                 | Apple Scribe (Color)       |
|                 | Citoh/NEC                  |
|                 | Citoh 1570 (Color)         |
|                 | Citoh 8510 (Color)         |
|                 | Epson (generic)            |
|                 | Epson FX, Fastext-80       |
|                 | Epson JX (Color)           |
|                 | Epson LQ-1500              |
|                 | Epson (enhanced mode)      |
|                 | Panasonic, Legend, Brother |
|                 | IBM (Epson compatible)     |
|                 | Okidata 82,83,92,84        |
|                 | Toshiba                    |
|                 | Mannesmann Tally           |

(Dip Switch Settings cont'd.)

| 1 2 3 4 5 6 7 8 | PRINTER                       |
|-----------------|-------------------------------|
|                 | MT Spirit 80                  |
|                 | IDS Prisma (req. spec. cable) |
|                 | Gemini, Smith Corona          |
|                 | Gemini (old version)          |
|                 | Quadjet (color)               |
|                 | Cannon (color)                |
|                 | Radio Shack (color)           |
|                 | Radio Shack DMP               |
|                 | IDS (color)                   |
|                 | Okimate (color)               |
|                 | Diablo (color)                |
|                 | Anadex                        |
| Other: _____    |                               |

## Cable Pin-out Diagrams

The diagrams below show the connection diagram for connecting the FingerPrint® serial and parallel ports to different devices. We strongly recommend that you only use original FingerPrint® cables as the use of improperly wired cables may damage your FingerPrint® card and the equipment to which it is attached.

### Serial Port

The diagram below shows how the FingerPrint® serial connector is wired.

Serial Cable Connector



Connecting the FingerPrint® serial port to a Novation, Hayes or Volks external modem:

FP-Connector

1. DTR
2. RTX
3. GND
4. TXD

DB-25 Modem Connector

- |          |
|----------|
| 6 and 20 |
| 3        |
| 7        |
| 2        |

Connecting the FingerPrint® serial port to an Apple external modem:

FP-Connector

|        |         |
|--------|---------|
| 1. DTR | 2 and 6 |
| 2. RTX | 5       |
| 3. GND | 3       |
| 5. TXD | 9       |

Connecting the FingerPrint® serial port to a Prometheus external modem:

FP-Connector

|        |    |
|--------|----|
| 1. DTR | 20 |
| 2. RTX | 3  |
| 3. GND | 7  |
| 5. TXD | 2  |

Connecting the FingerPrint® serial port to a serial printer:

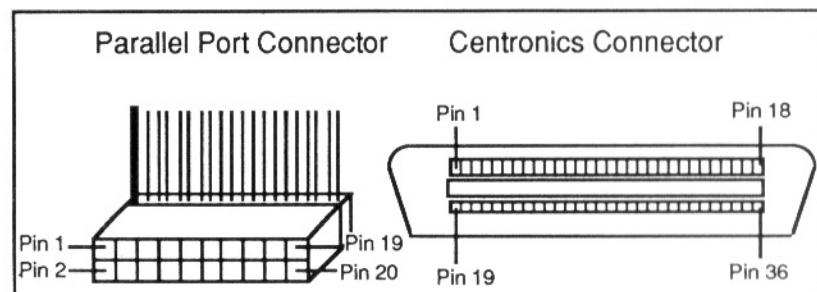
FP-Connector

|        |    |
|--------|----|
| 1. DTR | 20 |
| 2. RTX | 2  |
| 3. GND | 7  |
| 5. TXD | 3  |

DB-9 Modem Connector

## Parallel Port

The following diagram will show you how the parallel port is configured to be used with a centronics parallel printer.



FP-Connector

|                   |    |
|-------------------|----|
| 1. STB            | 1  |
| 2. D0             | 2  |
| 3. D1             | 3  |
| 4. D2             | 4  |
| 5. D3             | 5  |
| 6. D4             | 6  |
| 7. D5             | 7  |
| 8. D6             | 8  |
| 9. D7             | 9  |
| 10. ACK           | 10 |
| 11. BUSY          | 11 |
| 12. NO CONNECTION | 12 |
| 13. NO CONNECTION | 13 |
| 14. NO CONNECTION | 14 |
| 15. NO CONNECTION | 15 |
| 16. GND           | 16 |
| 17. NO CONNECTION | 17 |
| 18. NO CONNECTION | 18 |
| 19. GND           | 19 |
| 20. GND           | 20 |

Centronics Connector

## Using FingerPrint® With A Modem

To use an external modem with the FingerPrint® Plus card, you only need to install a FingerPrint® communications cable (Thirdware part# 051043) and use any standard communications software. You must use a communications program because the card's firmware will not directly support keyboard entry of communications commands.

When using an Apple Personal Modem, you can use the FingerPrint® ImageWriter II cable (part # 051044).

To order a cable, call Thirdware or your local dealer.

NOTE: Use of a communications cable not provided by Thirdware may void your warranty.

## Ideas For Applications

The FingerPrint® Plus card can be used to create materials for use at home and in the classroom. We will only mention some of these here. If you are interested in finding out more about various applications for this product, or if you would like to inform other users about your applications, subscribe to the "FingerPrint User's Newsletter". See chapter 1 for more details.

Use the FingerPrint® Plus card together with your favorite classroom software to create worksheets, homework papers, instant quizzes, and flash cards.

Use the X-AXIS/Y-AXIS options to crop away the answer portion of a screen and you have an instant quiz.

Use the LEFT MARGIN option to print materials in two or more columns. Print one column of text and graphics, then rewind the paper and set the left margin to 45 and print the second column.

Use the TYPE function to add text to your screen dumps. Use printer control commands to select fonts and type sizes. Type headlines and explanatory text, then dump your images.

Use the ROTATE option to create banners of images or text.

Use the FingerPrint® Slide-Show program to create instructional disks, and even self-running bulletin boards.

Print screens from Logo at the touch of a button.

If you have ideas or tips, we would like to hear them and share them with other FingerPrint® users. Please address your correspondence to : Thirdware Computer Products, FingerPrint® User's Newsletter, 4747 NW 72nd Ave., Miami, FL 33166.

(1988-11-01)

NOTES

Rebus writer Printout

Left side printing = "left Margin" 000 (or N)



Right side printing = "left Margin" 045 Y

always = "line feed" = No

"Y Axis" F 035 T 190 (cut 1% of VOU)  
Top.

Inverse = switch color off to see screen as

Black dot = Black print if inverse N

NOTES

## USER NEWSLETTER SUBSCRIPTION

### Class B Peripheral Device - Certification

This equipment generates and uses radio frequency energy and may cause interference to radio and television reception if not installed and used in strict accordance with the manufacturer's instructions. It has been certified, type tested and found to comply with the limits for a Class B computing device in accordance with the specifications in Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: (1) Reorient the receiving antenna, (2) Reorient the computer with respect to the receiver, (3) Move the computer away from the receiver, (4) Plug the computer into a different outlet so that the computer and receiver are on different branch circuits. If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the Federal Communications Commission helpful: "How to Identify and Resolve Radio TV Interference Problems". This booklet is available from the US Government Printing Office, Washington, DC 20402, Stock No. 004-000-00345-4. The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. It is the responsibility of the user to correct such interference.

Thirdware Computer Products publishes a user's news letter six times annually. The news letter contains tips and ideas on how to use the FingerPrint® card at home, in the office and in the classroom to create materials and make yourself more effective.

If you would like to receive the news letter, fill out the application below, and send it to Thirdware Computer Products together with your check for \$3.00 or we will not be able to process your subscription.

Please send me the "FingerPrint® User's News Letter" for one year. Enclosed is my check for \$ 3.00 to cover postage and handling costs.

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

## FINGERPRINT® WARRANTY CARD

Name: \_\_\_\_\_

School/Organization: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Title: \_\_\_\_\_ Schl/Off Phone: \_\_\_\_\_

Product:  FingerPrint GSi  FingerPrint Plus  FingerPrint IIC  
 FingerPrint SS  FingerPrint G+  Other: \_\_\_\_\_

Date of Purchase: \_\_\_\_\_

Purchased From: \_\_\_\_\_

What computer magazines do you read regularly?:

A+  InCider  Nibble  Compute  Personal Computing  
 Electronic Learning  Classroom Computer Learning  THE Journal

How did you learn about FingerPrint?:  Magazine  Dealer  Friend

We welcome your comments: \_\_\_\_\_

**FILL OUT THIS WARRANTY CARD AND MAIL IT TODAY**

## THANK YOU FOR BUYING OUR PRODUCT

Thank you for purchasing this Thirdware Computer Products product. Thirdware Computer Products is dedicated to providing you with high quality enhancement products to help you be more creative and more productive.

If you have suggestions or ideas for products to meet your special needs, let us hear from you. Together, we can make a difference.

We hope that you enjoy our product!

(Fold Here)

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Place  
Stamp  
Here

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**4747 NW 72nd Avenue  
Miami, FL 33166**